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Title: Feeding habits of southern form short-finned pilot whales (Globicephala macrorhynchus) in the western North Pacific off central Japan

Category: Ecology

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Abstract: Pilot whales are believed to feed mainly on squids, although studies of stomach content analysis are limited, especially for short-finned pilot whale. We analyzed stomach contents of 52 short-finned pilot whales caught by small-type whaling off central Pacific coast of Japan in 1999 and 2000. Stomach contents included numerous mesopelagic squids mainly Enoploteuthis chuni, Moroteuthis loennbergi, and Taonius pavo, but mesopelagic large fishes such as Lepidocybium flavobrunneum, Psenes pellucidus, and large squids such as Taningia danae were important in mass contribution. Statistically equal weights of fish and squid prey were included in the stomach contents. These results suggest that fishes are important food of short-finned pilot whales off central Pacific coast of Japan in contrast to common prediction that pilot whales are teuthivorous. Mean stomach contents weight was 3.6 kg. Undigested prey items were commonly found throughout daytime, suggesting that short-finned pilot whales fed on mesopelagic prey even in daytime. Body lengths of most prey items were relatively small, but largest prey was about 1 m both in squid and fish. Larger pilot whales tended to feed on larger squids, especially T. danae, while smaller whales feed on smaller squids, especially E. chuni. Generally, larger mesopelagic squids inhabit deeper layer. The size variation of prev squids suggests that short-finned pilot whales dive deeper to forage as growing up.